

51

if it is determined that the first virtual machine does not exist, creating the first virtual machine and a first activation entity associated with the first virtual machine; and forwarding the first activate request to the first activation entity associated with the first virtual machine, wherein the first group of objects is a first subset of all objects that can be remotely activated, and wherein objects of the first object group are executed only in the first virtual machine.

71. The method as recited in claim 70, wherein the first object group comprises objects that a user predetermined to be in the first object group.

72. The method of claim 70, wherein:
the first activate request is received by an object activator; and
the object activator passes the first activate request to the first activation entity.

73. The method of claim 70, wherein the first virtual machine only executes on objects in the first object group.

74. The method of claim 70, wherein:
the first activate request is sent by a first computer; and
the first activate request is received at a second computer different from the first computer.

75. The method of claim 74, wherein the first virtual machine is created in the second computer.

76. The method of claim 70, further comprising:

receiving a second request to activate a second object of a second object group;

in response to the received second activate request, determining whether a second virtual machine associated with the second object group exists;

if it is determined that the second virtual machine does not exist, creating the second virtual machine and a second activation entity associated with the second virtual machine; and

forwarding the second activate request to the second activation entity associated with the second virtual machine,

wherein the second group of objects is a second subset of all objects that can be remotely activated,

wherein objects of the second object group are executed only in the second virtual machine, and

wherein no object in the first object group is in the second object group.

77. The method of claim 76, wherein:

the first virtual machine only executes on objects in the first object group; and

the second virtual machine only executes on objects in the second object group.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

78. The method as recited in claim 76, wherein the second object group comprises objects that a user predetermined to be in the second group.

E1
79. The method of claim 76, wherein the first and second activate requests are received by an object activator.

80. The method of claim 79, wherein the object activator is coupled to the first and second activation entities.

81. The method of claim 76, wherein:
the first activate request is sent by a first computer; and
the first activate request is received at a second computer different from the first computer.

82. The method of claim 81, wherein the first virtual machine is created in the second computer.

83. The method of claim 81, wherein:
the second activate request is sent by the first computer; and
the second activate request is received at the second computer.

84. The method of claim 83, wherein the second virtual machine is created in the second computer.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

85. A computer-implemented method of handling an object call for an object, the method comprising:

receiving a first object call to remotely activate a first object;

in response to the received first object call, determining whether a first object group corresponding to the first object is active; and

if it is determined that the first object group is not active, creating the first object group and activating the first object within the created first object group,

wherein the first object group is a first subset of all objects that can be remotely activated.

86. The method of claim 85, wherein:

creating the first object group comprises creating a first virtual machine and a first activation entity associated with the first virtual machine; and

activating the first object within the created first object group comprises forwarding the first activate request to the first activation entity associated with the first virtual machine,

wherein objects of the first object group are executed only in the first virtual machine.

87. The method as recited in claim 86, wherein the first object group comprises objects that a user predetermined to be in the first object group.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

E1

88. The method of claim 85, further comprising:
receiving a second object call to remotely activate a second object;
in response to the received second object call, determining whether a second
object group corresponding to the second object is active; and
if it is determined that the second object group is not active, creating the second
object group and activating the second object within the created second object group,
wherein the second object group is a second subset, different from the first
subset, of all objects that can be remotely activated.

89. The method of claim 88, wherein:
creating the second object group comprises creating a second virtual machine
and a second activation entity associated with the second virtual machine; and
activating the second object within the created second object group comprises
forwarding the second activate request to the second activation entity associated with
the second virtual machine,
wherein objects of the second object group are executed only in the second
virtual machine.

90. The method of claim 89, wherein:
the first virtual machine only executes on objects in the first object group; and
the second virtual machine only executes on objects in the second object group.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, DC 20005
202-408-4000

E1

91. A computer-implemented method of remotely accessing objects, the method comprising:

- receiving a first request to remotely access a first object of a first object group;
- in response to the received first access request, determining whether the first object is active;
- if it is determined that the first object is inactive, determining whether there is a first virtual machine associated with the first object group;
- if it is determined that the first virtual machine does not exist, creating the first virtual machine and a first activation entity associated with the first virtual machine; and
- forwarding the first access request to the first activation entity associated with the first virtual machine,

wherein the first object group is a first subset of all objects that can be remotely accessed, and

wherein objects of the first object group are executed only in the first virtual machine.

92. The method as recited in claim 91, wherein the first object group comprises objects that a user predetermined to be in the first object group.

93. The method of claim 91, wherein the first virtual machine only executes on objects in the first object group.

E

94. The method of claim 91, wherein:
the first access request is sent by a first computer; and
the first access request is received at a second computer different from the first computer.

95. The method of claim 94, wherein the first virtual machine is created in the second computer.

96. The method of claim 91, further comprising:
receiving a second request to access a second object of a second object group;
in response to the received second access request, determining whether a second virtual machine associated with the second object group exists;
if it is determined that the second virtual machine does not exist, creating the second virtual machine and a second activation entity associated with the second virtual machine; and
forwarding the second access request to the second activation entity associated with the second virtual machine,
wherein the second group of objects is a second subset of all objects that can be remotely accessed,
wherein objects of the second object group are executed only in the second virtual machine, and
wherein no object in the first object group is in the second object group.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

97. The method as recited in claim 96, wherein the second object group comprises objects that a user predetermined to be in the second group.

98. The method of claim 96, wherein:
the first virtual machine only executes on objects in the first object group; and
the second virtual machine only executes on objects in the second object group.

99. The method of claim 96, wherein:
the first access request is sent by a first computer; and
the first access request is received at a second computer different from the first computer.

100. The method of claim 99, wherein the first virtual machine is created in the second computer.

101. The method of claim 99, wherein:
the second access request is sent by the first computer; and
the second access request is received at the second computer.

102. The method of claim 101, wherein the second virtual machine is created in the second computer.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, CARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000